

1. Method for welding an overlapping article (2) of sheet metal on a welding apparatus (6) with welding electrode rollers (7, 8) and if required with additional intermediate wire electrodes (11, 12), characterized in that the welding current (3) (3) is not applied to the electrodes until the article to be welded is between the electrodes.
2. Method according to Claim 1, characterized in that the moment (Pt. 2') of switching on the welding current (3) is derived from the forward or rear edge, in the welding direction, of the article to be welded.
3. Method according to Claim 2, characterized in that the moment of switching on is derived from the forward edge by detecting the deflection of at least one of the welding electrode rollers upon insertion of the article between the welding electrode rollers.
4. Method according to Claim 3, characterized in that the welding current is applied to the welding electrode rollers at the next passage through zero of the said current following a predetermined, adjustable deflection of the said rollers.
5. Method according to any one of Claims 1 to 4, characterized in that the rated welding current value (B) for the overlapping weld seam is impressed at the welding electrode rollers and/or intermediate wire electrodes at the moment of switching on.

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6. Method according to any one of Claims 1 to 4, characterized in that a rated welding current value (A) lower than the rated welded current value (B) for the overlapping weld seam is impressed at the welding electrode rollers and/or intermediate wire electrodes at the moment of switching on and the rated current value (B) is impressed after a predetermined time.

7. Method according to any one of Claims 1 to 6, characterized in that the welding current is applied to the welding electrode rollers and/or intermediate wire electrodes as a steady alternating current at the moment of switching on and is applied thereto as alternating current interrupted by pauses after a predetermined time.

8. Method according to any one of Claims 1 to 7, characterized in that the articles to be welded are can bodies (2).

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9. Method according to any one of Claims 1 to 8, characterized in that the article to be welded (2) has a single or double overlap (30, 31).

10. Method according to any one of Claims 1 to 9, characterized in that the single sheet thickness of the articles to be welded is 0.4 mm to 1.25 mm, and in that the articles to be welded comprise in particular coated sheets.

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11. Welding apparatus with welding electrode rollers (7, 8) and if required with additional intermediate wire electrodes (11,12), with a welding current source (14), in particular an AC welding current source, that can be connected to the electrodes by a controllable switch arrangement (17), and with a control device (20) for the switch arrangement, characterized in that a means (21) connected to the control device is provided which is triggered by the position with respect to the welding electrode rollers of the forward or rear edge, viewed in the welding direction, of an article to be welded, and in that the control device (20) is configured to receive from the means (21) a signal indicating the position of the edge of the article to be welded with respect to the electrode rollers and in dependence thereon to deliver to the switch arrangement (17) a signal (29) releasing the welding current to the electrode rollers and/or the intermediate wire electrodes.

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12. Welding apparatus according to Claim 11, characterized in that the means is configured to detect the deflection or at least one of the welding electrode rollers (7) by the article (2) passing between the electrodes.

13. Welding apparatus according to Claim 11 or Claim 12, characterized in that the means for detecting the deflection comprises a setting arrangement (22, 26, 27, 28) by means of which the response to the position of the leading edge of the article to be welded is adaptable to the thickness of the sheet metal.

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14. Welding apparatus according to Claim 13, characterized in that the setting arrangement has a disk (26) with a plurality of regions (27) of different thickness in a predetermined proportion to the thickness of the sheet material of the articles to be welded.

15. Welding apparatus according to Claim 14, characterized in that the disk (26) is rotatably arranged, and the regions (27) are recesses of different depth in the disk which are preferably each marked with the corresponding thickness of the sheet material of the article to be welded.

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